

CLAIMS

What is claimed is:

1. A system allowing for centralized, network application performance management

5 services, comprising:

a first network,

a customer site comprising a second network,

an access link between the first network and the second network of the customer

site,

10 a managed network operations center operably connected to the first network, the managed network operations center monitoring the access link between the first network and the second network of the customer site,

and, a bandwidth management device operably connected to the access link;

wherein the bandwidth management device is operable to monitor network

15 traffic on the access link in relation to bandwidth utilization and application performance and transmit data related to the network traffic to the managed network operations center;

wherein the bandwidth management device is operable to control network traffic based on a set of bandwidth management policies; and,

wherein the managed network operations center is operable to apply to the

20 bandwidth management device a set of bandwidth management policies based on application performance priorities received from an enterprise customer associated with the customer site.

2. The system of claim 1 wherein the managed network operations center is operable to

25 manage a plurality of bandwidth management devices across a plurality of enterprise customers, wherein each enterprise customer has associated therewith at least one of the plurality of bandwidth management devices.

3. The system of claim 1 wherein the managed network operations center comprises
a device manager server operably connected to the first network to receive data from
the bandwidth management device; and
a network traffic database storing network traffic data corresponding to a plurality of
5 bandwidth management devices across a plurality of business enterprises;
wherein the device manager server is operable to store the data received from
the bandwidth management device in the network traffic database.

4. The system of claim 1 wherein the managed network operations center further comprises
10 a data analysis server operable to analyze the network traffic stored in the network
traffic database.

5. The system of claim 1 wherein the managed network operations center includes
functionality allowing for the generation of reports related to application performance and
15 network traffic across the access link.

6. The system of claim 5 wherein the data analysis server is operable to generate the reports
related to the application performance and network traffic across the access link.

20 7. The system of claim 1 further comprising a routing device at the customer site between
the second network and the access link, the routing device operable to route data between
the first network and the second network.

25 8. The system of claim 7 wherein the bandwidth management device is located between
the routing device and the access link.

9. The system of claim 7 wherein the bandwidth management device is located within the
routing device.

10. The system of claim 1 wherein the bandwidth management device is located between the access link and the first network.

11. The system of claim 7 wherein the bandwidth management device is located between 5 the access link and the first network.

12. The system of claim 1 wherein the managed network operations center is operable to alter the set of bandwidth management policies implemented by the bandwidth management device.

10

13. The system of claim 1 wherein the first network is a wide area computer network.

14. The system of claim 1 wherein the second network is a local area network.

15

15. The system of claim 1 wherein the bandwidth management device further includes customer portal functionality facilitating interaction between the customer site and the managed network operations center.

20

16. A system allowing for centralized, network application performance management services deployed over a computer network to a customer site, comprising:

an access link between the computer network and the customer site,
a managed network operations center operably connected to and monitoring the access link, and
a bandwidth management device operably connected to the access link;

25

wherein the bandwidth management device is operable to monitor network traffic on the access link in relation to bandwidth utilization and application performance and transmit data related to the network traffic to the managed network operations center;
wherein the bandwidth management device is operable to control network

traffic based on a set of bandwidth management policies; and,

wherein the managed network operations center is operable to receive application performance priorities from the customer site and apply a set of bandwidth management policies based on the priorities to the bandwidth management device.

5

17. A method allowing for centralized application performance management services at a managed network operations center to at least one customer site associated with an enterprise customer, wherein the customer site is operably connected to a first network via an access link, the method comprising the steps of:

10 deploying a bandwidth management device on the access link; wherein the bandwidth management device is operable to transmit data to and receive data from the managed network operations center;

15 profiling with the bandwidth management device(s) the network traffic across the access link to identify bandwidth consumption of applications;

20 receiving from the enterprise customer a prioritization of applications based on the profiled network traffic;

25 applying a set of bandwidth management policies for controlling network traffic based on the prioritization received from the enterprise customer; and

30 monitoring, at a managed network operations center, application performance to

35 assess compliance with the prioritization received from the enterprise customer.

18. The method of claim 17 further comprising the step of

35 providing a report detailing application performance and bandwidth utilization levels across the access link.

25

35 19. The method of claim 17 wherein the providing step comprises providing on-line access to the report.

20. The method of claim 17 wherein the bandwidth management device transmits data relating to the profiled network traffic to the managed network operations center.

21. The method of claim 17 wherein the monitoring step comprises the steps of
5 profiling, with the bandwidth management device, the network traffic across the access link to identify bandwidth consumption of business applications and other applications; and

receiving from the bandwidth management device data relating to the profiled network traffic.

10

22. The method of claim 17 wherein step of applying comprises transmitting the set of bandwidth management policies to the bandwidth management device on the access link.

23. A method enabling centralized application performance management services, wherein the services are provided by a managed network operations center operably connected to a first network, and wherein the services are provided to at least one customer site connected to the first network via a transmission link, the transmission link including a bandwidth management device operable to monitor network traffic in relation to bandwidth utilization and application performance and transmit data related to the network traffic to the managed network operations center; wherein the bandwidth management device is operable to control network traffic across the transmission link based on a set of bandwidth management policies, the method comprising the steps of:

receiving, at the managed network operations center, a request to change a policy for a customer site;

25 applying a new set of bandwidth management policies based on the requested change.

24. The method of claim 23 further comprising the step of

authenticating the user, before applying the new set of bandwidth management policies.

25. The method of claim 23 wherein the applying step comprises the steps of
5 formulating a new set of bandwidth management policies based on the desired change received from the user; and,

transmitting the new set of bandwidth management policies to the bandwidth management device.

10 26. A method facilitating centralized application performance management services, the services provided by a managed network operations center to a customer site, wherein the customer site is operably connected to a first network through an access link, and wherein a bandwidth management device is operably connected to the access link to monitor and collect network traffic across the access link, the method comprising the steps of:

15 receiving, at the managed network operations center, data relating to network traffic collected by the bandwidth management device;

analyzing the data to characterize the network traffic across the access link;

generating a report detailing at least one aspect of the network traffic across the access link; and

20 delivering the report to the customer site.

27. An apparatus enabling the provision of centralized application performance management services to a plurality of enterprises, comprising

a plurality of bandwidth management devices each corresponding to a customer site;

25 a device manager server operably connected to the bandwidth management devices;

wherein the bandwidth management devices are operable to monitor network traffic on respective access links between the customer sites and a wide area network in relation to bandwidth utilization and application performance and transmit data

related to the network traffic to the device manager server;

wherein the bandwidth management devices are further operable to control network traffic across the access links based on bandwidth management policies; and,

wherein the device manager server is operable to receive application

5 performance priorities for access links corresponding to customer sites and apply a set of bandwidth management policies implementing the priorities to corresponding bandwidth management devices.

28. The apparatus of claim 27 further comprising a network traffic database storing network

10 traffic data corresponding to a plurality of bandwidth management devices; and

wherein the device manager server is operable to store in the network traffic database network traffic data received from the bandwidth management devices in association with the corresponding customer sites.

15 29. The apparatus of claim 28 further comprising a data analysis server operably connected to the network traffic database;

wherein the data analysis server is operable to analyze the network traffic data corresponding to a particular access link and to generate a report characterizing application performance and bandwidth utilization across the access link.

20

30. A system allowing for centralized, network application performance management services, comprising:

a first network,

at least one customer site associated with an enterprise customer, the customer site

25 comprising a second network and a routing device,

an access link between the first network and the routing device of the customer site,

wherein the routing device is operably connected to the second computer network to route data between the first network and the second network,

a managed network operations center operably connected to the first network, the managed network operations center monitoring the access link between the first network and the second network of the customer site,

and, a bandwidth management device operably connected to the access link;

5 wherein the bandwidth management device is operable to monitor network traffic on the access link in relation to bandwidth utilization and application performance and transmit data related to the network traffic to the managed network operations center;

 wherein the bandwidth management device is operable to control network traffic based on a set of bandwidth management policies; and,

10 wherein the managed network operations center is operable to apply to the bandwidth management device a set of bandwidth management policies based on application performance priorities received from an enterprise customer associated with the customer site; and

15 wherein the managed network operations center is operable to manage a plurality of bandwidth management devices across a plurality of enterprise customers, wherein each enterprise customer has associated therewith at least one of the plurality of bandwidth management devices.